

# Effect of the Novel Low Molecular Weight Hydrolyzed Chicken Sternal Cartilage Extract, BioCell Collagen, on Improving Osteoarthritis-Related Symptoms: A Randomized, Double-Blind, Placebo-Controlled Trial

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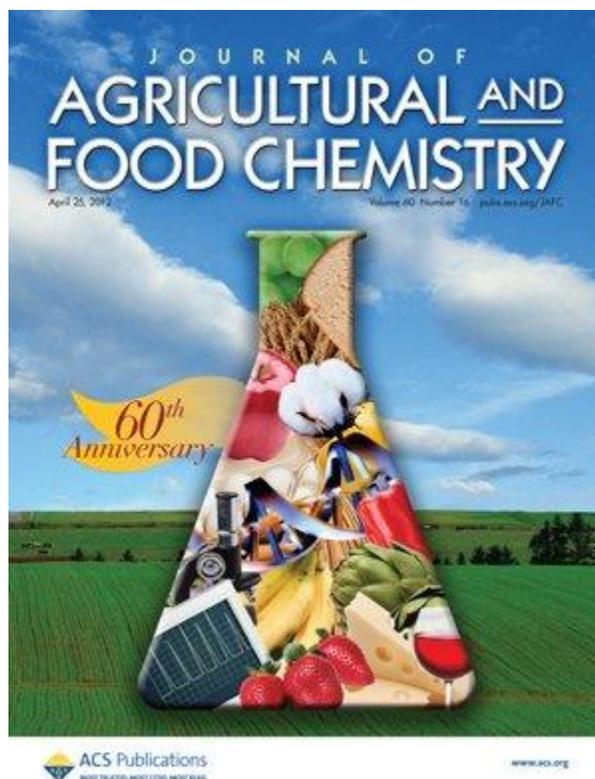
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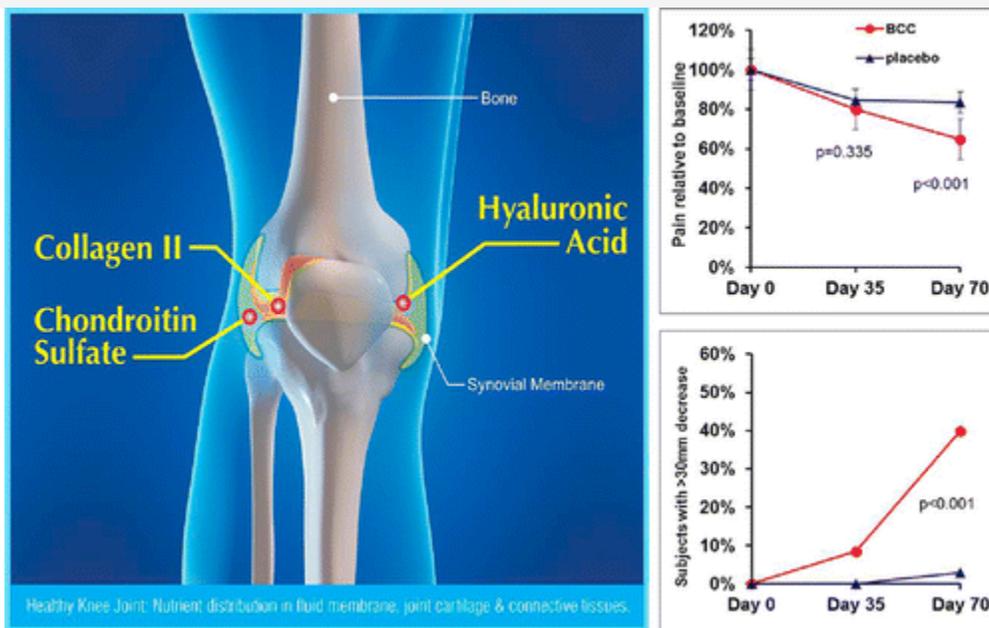
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## Abstract



Osteoarthritis (OA) is a significant source of pain and disability. Current medical and surgical treatments can be costly and have serious side effects. The aim of this randomized, double-blind, placebo-controlled trial was to investigate the tolerability

and efficacy of BioCell Collagen (BCC), a low molecular weight dietary supplement consisting of hydrolyzed chicken sternal cartilage extract, in the treatment of OA symptoms. Patients ( $n = 80$ ) in the study had physician-verified evidence of progressive OA in their hip and/or knee joint. Joint pain had been present for 3 months or longer at enrollment, and pain levels were 4 or higher at baseline as assessed by Physician Global Assessment scores. Subjects were divided into two groups and administered either 2 g of BCC or placebo for 70 days. Other outcome measurements included visual analogue scale (VAS) for pain and Western Ontario and McMaster Universities Arthritis Index (WOMAC) scores taken on days 1, 35, and 70. The tolerability profile of the treatment group was comparable to that of the placebo. Intent-to-treat analysis showed that the treatment group, as compared to placebo, had a significant reduction of VAS pain on day 70 ( $p < 0.001$ ) and of WOMAC scores on both days 35 ( $p = 0.017$ ) and 70 ( $p < 0.001$ ). The BCC group experienced a significant improvement in physical activities compared to the placebo group on days 35 ( $p = 0.007$ ) and 70 ( $p < 0.001$ ). BCC was well tolerated and found to be effective in managing OA-associated symptoms over the study period, thereby improving patient's activities of daily living. BCC can be considered a potential complement to current OA therapies.